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Indonesia

Oilseeds and Products Annual

Indonesia Oilseeds and Products Annual 2018

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Report Highlights:

Palm oil production is expected to increase from 38.5 million tons in 2017/18 to 40.5 million tons in 2018/19. Exports and stocks are forecast to increase. Harvested area is revised for 2008-2017 based on analysis of seed sales and seed trade data. Soybean imports are forecast up slightly to 2.85 million tons for 2018/19.

Oil, palm

Production

Based on expectations for trend yield growth and revised area, 2018/2019 palm oil production is forecast at 40.5 million tons, a 5 percent increase from 2017/2018. Total harvested area for 2008 – 2017 was revised based on seeds sales and seed trade data (Figures 1 and Table 1). Harvested area for 2018/2019 is forecast at 11.3 million hectares.



Figure 1 Indonesia seed sales, mature area and immature area

Source: industry contact, post calculation

Table 1 Revised PS&D Table -- Updated Area Harvested 2008-2016

Attribute	2006/2007	2007/2008	2008/2009	2009/2010	2010/2011
Area Harvested	5,236	5,586	6,063	6,498	7,256
Beginning Stocks	1,075	2,069	1,457	1,179	1,459
Production	16,600	18,000	20,500	22,000	23,600
Imports	3	7	21	49	23
Total Supply	17,678	20,076	21,978	23,228	25,082
Exports	11,419	13,969	15,964	16,573	16,423
Industrial Dom. Cons.	400	650	800	1,250	1,800
Food Use Dom. Cons.	3,700	3,900	3,900	3,800	4,300
Feed Waste Dom. Cons.	90	100	135	146	169
Domestic Consumption	4,190	4,650	4,835	5,196	6,269
Ending Stocks	2,069	1,457	1,179	1,459	2,390
Total Distribution	17,678	20,076	21,978	23,228	25,082
Yield	3.17	3.22	3.38	3.39	3.25

	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016
Area Harvested	8,064	8,430	8,958	9,523	10,198
Beginning Stocks	2,390	3,022	3,152	3,210	2,734
Production	26,200	28,500	30,500	33,000	32,000
Imports	0	38	27	8	0
Total Supply	28,590	31,560	33,679	36,218	34,734
Exports	18,453	20,373	21,719	25,964	22,906
Industrial Dom. Cons.	2,300	2,900	3,500	2,000	3,300
Food Use Dom. Cons.	4,600	4,900	5,000	5,200	5,250
Feed Waste Dom. Cons.	215	235	250	320	320
Domestic Consumption	7,115	8,035	8,750	7,520	8,870
Ending Stocks	3,022	3,152	3,210	2,734	2,958
Total Distribution	28,590	31,560	33,679	36,218	34,734
Yield	3.25	3.38	3.40	3.47	3.14

Grey: revised

To revise the area, seed sales and seed import/exports from 2008 through 2017 were analyzed and it was assumed that an average 200 seeds per hectare were used, minus 25 percent nursery mortality, and less 1 percent planted mortality. The year 2008 was selected as the first year because it was that year that discrepancies between USDA data and other sources began to appear, and then the divergence became more pronounced post-2011.

Seed sales data suggests significant growth in area planted beginning in 2009, with total seed sales reaching 171 million seed in 2012. During these years, seed producers struggled to provide enough high- quality seeds as global prices for CPO increased seed demand beyond suppliers' production capacity. As a result, many small holder farmers purchased "uncertified" seeds from local vendors. Some estimates place "uncertified" seeds at up to 20 percent of total seed sales during this period. The planting of underperforming seeds by small holder farmers during this period only exacerbated and already significant yield difference between small holder and large holder plantations. Additionally, a moratorium imposed on large holder plantations beginning in 2011 further incentivized area expansion to small holder plantations.

All these factors suggest an overall increase in area planted compared to previous estimates, especially for small holder farmers, and a corresponding decrease in average yield (Figure 2).

3.90 3.70 3.50 3.30 3.10 2.90 2.70 2.50 2015 2010 2011 2012 2013 2014 DG of Estate —USDA

Figure 2. Yield: New Post estimate vs. DG of Estate

Indonesia' palm plantations are divided between large holder plantations, state-owned plantations, and small holder farms (generally considered less than 25 hectares). Total area planted is divided among these groups at an estimated 52 percent, 7 percent and 41 percent respectively. Post-2011, large holder plantations have continued to grow, though at a slower pace, utilizing lands acquired prior to the moratorium. State-Owned plantations have generally remained stagnant.



Figure 3. Indonesia oil palm area 2008-2018F

Seed sales data suggests a divergence in total mature oil palm area from official data. Assuming an average 25 year optimal life cycle for the palm trees, mature oil palm area doubled in the ten year period 2008-2018, from 5.5 million hectares in 2008 to 11 million hectares in 2018. Based on estimates using historical seed sales data, immature area is estimated to be down from 25 percent to about 10 percent of the total area in 2018. This estimate differs from the GOI/DG publications that show immature area representing on average 24 percent of the total area over the same period (Figure 4).



Figure 4. DG of Estate, Post Mature and Immature Area

Source: DG of Estate (2017), Post calculation

Assuming replanting will be done for all 25 year-old palm trees, immature area is forecast to decline to 7 percent in 2021, before rebounding and increasing to 13 percent in 2024.

Consumption

In line with expectations for population growth and industrial demand, palm oil consumption is forecast to increase slightly to 9.48 million tons in 2018/19. Industrial consumption remains tied to biodiesel production with potential growth linked to policy expanding biodiesel subsidies. Details of an expansion of subsidies to the non-Public Sector Obligation (PSO), or non-Public Transport Sector are still being debated.

Based on 2017 export data, Indonesia's CPO fund collected more revenue in 2017 than the previous year, making it feasible to subsidize a larger biodiesel volume. The BPDPKS, the agency managing the CPO fund, states that during 2017 the agency collected IDR 14 trillion (~USD 1 billion), while the expenses (including biodiesel subsidy) reached IDR 10.3 trillion (~USD 757 million). The fund has accumulated IDR 11 trillion (~USD 808 million) since 2015.

If the replanting portion of the fund program reaches IDR 2.5 trillion (~USD 181 million), there would still be IDR 8.5 trillion (~USD 616 million) left for expanding the biodiesel program. This amount could cover up to 2.8 billion liters, assuming the subsidy (spread between biodiesel and diesel price) is set at IDR 3000. This calculation doesn't include any funds being collected for 2018.

Unless/until a regulation is issued to expand the biodiesel mandate program beyond the PSO sector, biodiesel production is not expected to grow.

Trade

MY 2017/18

Based on a 4 percent slower pace of exports during October to December 2017, the 2017/18 palm oil export forecast is reduced to 27.5 million tons. Shipments to major destinations such as China, India and EU were 3, 4, and 17 percent lower, respectively (see Figure 5).

MY 2018/19

Based on 5 percent growth in demand from China, 3 percent from EU, 1.5 percent from India, and trend growth from other key markets, 2018/19 exports are forecast to reach 29.5 million tons.

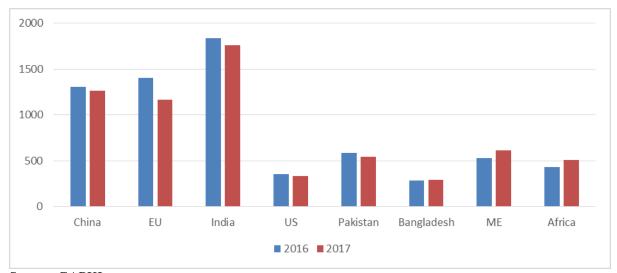


Figure 5. Indonesia Palm oil and laurics exports October-December 2016 vs 2017 (thousand MT)

Source: GAPKI

Policy

A moratorium on the expansion of large plantations into peatlands and primary forest area was adopted in 2011. This initial moratorium applied primarily to large holder plantations and has likely contributed to the expansion of small holder farms. A new policy further limiting the expansion of oil palm plantations was announced in April 2016 and has been circulated through various ministries for approval. If enacted the new policy would halt all new permits for converting forest area to plantations and reclaim undeveloped (unplanted) area within concession permits.

Labor

Although Indonesia has yet to experience labor shortages in the palm oil sector on the scale of neighboring Malaysia, early signs of labor stress are noticeable, especially in regions such as Kalimantan, where labor is already being provided by temporary workers from East Java and East Nusa Tenggara. As new planted area continues to shift towards eastern provinces, and urbanization attracts a better educated and younger workforce from traditional palm areas such as Northern Sumatera, labor shortages are likely to increase.

Oil, Palm	2016/2017	2017/2018	2018/2019
Market Begin Year	Oct-16	Oct-17	Oct-18

Indonesia	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Planted		0	0	0	0	0
Area Harvested	9200	10600	9500	11000		11300
Trees	0	0	0	0		0
Beginning Stocks	2958	2958	2255	2255		3915
Production	36000	36000	38500	38500		40500
Total Supply	38958	38958	40755	40755		44415
MY Exports	27633	27633	28000	27500		29500
Industrial Dom. Cons.	3450	3450	3600	3600		3620
Food Use Dom. Cons.	5300	5300	5400	5400		5500
Feed Waste Dom. Cons.	320	320	350	340		360
Total Dom. Cons.	9070	9070	9350	9340		9480
Ending Stocks	2255	2255	3405	3915		5435
Total Distribution	38958	38958	40755	40755		44415

Oilseeds, palm kernel

Production

Assuming an oil extraction rate at 23 percent, fresh fruit bunch (FFB) production is estimated at 170 million tons in 2017/18 and 179 million tons in 2018/19. Palm kernel (PK) production is estimated at 6 percent of total FFB weight; therefore, PK production is forecast to reach 10.2 million tons in 2017/18 and 10.6 million tons in 2018/19.

Consumption

Palm kernel crush is forecast at 10.5 million tons in 2018/19, 400,000 tons higher than 2017/18.

Trade

Post expects PK exports stable at 10,000 tons for 2017/18 and 2018/19.

Production, Supply	and Distribution	Data Statist	ics		1	
Oilseed, Palm Kernel	2016/20	2016/2017 Oct-16		18	2018/2019 Oct-18	
Market Begin Year	Oct-1			7		
Indonesia	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Planted	0	0	0	0	0	0
Area Harvested	9200	10600	9200	11000	0	11300
Trees	0	0	0	0	0	0
Beginning Stocks	60	60	53	53	0	68
Production	9500	9500	10200	10200	0	10600
MY Imports	0	0	0	0	0	0
Total Supply	9560	9560	10253	10253	0	10668
MY Exports	57	57	5	10	0	10
Crush	9380	9380	10100	10100	0	10500
Food Use Dom. Cons.	0	0	0	0	0	0

Feed Waste Dom. Cons.	70	70	80	75	0	80
Total Dom. Cons.	9450	9450	10180	10175	0	10580
Ending Stocks	53	53	68	68	0	78
Total Distribution	9560	9560	10253	10253	0	10668

Oil, palm kernel

Production

Based on expected 10.1 million tons of palm kernel to be crushed in 2017/18 and 10.5 million tons in 2018/19, estimates palm kernel oil production is forecast to reach 4.35 million tons in 2017/18 and 4.5 million tons in 2018/19.

Consumption

Industrial sector palm kernel oil consumption is expected to increase to 2.2 million tons in 2018/19, a 100,000 ton increase over 2017/18. This growth is possible given expected ample supplies and industrial expansion in oleo-chemicals.

Trade

Palm kernel oil exports are expected to increase from 1.85 million tons to 1.9 million tons in 2018/19, based on the competitive price forecast.

Production, Supply and Distribution Data Statistics

Oil, Palm Kernel	2016/20	017	2017/20	018	2018/20)19
Market Begin Year	Oct-1	Oct-16		7	Oct-18	
Indonesia	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Crush	9380	9380	10100	10100		10500
Extr. Rate, 999.9999	0.4371	0.4371	0.436	0.431	0	0.429
Beginning Stocks	155	155	243	243	0	293
Production	4100	4100	4400	4350	0	4500
MY Imports	0	0	0	0	0	0
Total Supply	4255	4255	4643	4593	0	4793
MY Exports	1712	1712	1800	1850	0	1900
Industrial Dom. Cons.	1950	1950	2100	2100	0	2200
Food Use Dom. Cons.	350	350	360	350	0	370
Feed Waste Dom. Cons.	0	0	0	0	0	0
Total Dom. Cons.	2300	2300	2460	2450	0	2570
Ending Stocks	243	243	383	293	0	323
Total Distribution	4255	4255	4643	4593	0	4793

Commodities:

Meal, palm kernel

Production

Assuming a palm kernel crush yield of 52 percent, palm kernel meal (PKM) production is estimated to reach 5.5 million tons in 2018/19.

Consumption

Palm kernel meal consumption is tied to ruminant feed consumption. However, due to logistical constraints, palm kernel consumption is forecast to reach only 650,000 metric tons in 2018/19.

Trade

More than 90 percent of palm kernel meal is exported. Palm kernel meal exports are estimated to be 4.7 million tons in 2017/2018, based on the pace of shipments today. Exports for 2018/19 are forecast to reach 4.9 million tons due to expected ample supplies and competitive prices.

Production, Supply and Distribution Data Statistics

Meal, Palm Kernel	2016/20	17	2017/20)18	2018/20	19
Market Begin Year	Oct-1	Oct-16 Oct-17		7	Oct-18	
Indonesia	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Crush	9380	9380	10100	10100	0	10500
Extr. Rate, 999.9999	0.522	0.522	0.525	0.525	0	0.524
Beginning Stocks	288	288	270	270	0	240
Production	4900	4900	5300	5300	0	5500
MY Imports	0	0	0	0	0	0
Total Supply	5188	5188	5570	5570	0	5740
MY Exports	4318	4318	4650	4700	0	4900
Industrial Dom. Cons.	0	0	0	0	0	0
Food Use Dom. Cons.	0	0	0	0	0	0
Feed Waste Dom. Cons.	600	600	650	630	0	650
Total Dom. Cons.	600	600	650	630	0	650
Ending Stocks	270	270	270	240	0	190
Total Distribution	5188	5188	5570	5570	0	5740

Commodities:

Oilseed, Soybean

Production

Soybean production is forecast to decline from 540,000 tons in 2017/18 to 520,000 tons in 2018/19. The continuing decline is the result of farmers' preference for planting more lucrative crops, including rice and corn. Government policy establishing a minimum price for corn has added incentive for risk-averse farmers, while policies restricting imports for both corn (for feed use) and rice have resulted in higher prices for farmers (and in turn consumers).

Soybeans are still considered a secondary crop, often planted as a third crop between rice plantings. In several regions soybean plantings also compete with mung beans which also provide better returns for farmers. Despite GOI efforts to dramatically increase soybean production, these efforts have been unsuccessful.

Consumption

Soybeans use for food products is expected to continue to increase with population growth. Soybean consumption for the feed sector is expected to continue to increase as well due to the use of full fat soybeans as a feed component. Feed use for 2017/18 at 160,000 tons and at 170,000 tons for 2018/19 is maintained.

Trade

Soybean imports are forecast to reach 2.85 million tons in 2018/19, driven by population growth that fuels demand in the food sector.

Production, Supply and Distribution Data Statistics

Oilseed, Soybean	2016/20	017	2017/20	018	2018/2	019
Market Begin Year	Oct-1	Oct-16		7	Oct-18	
Indonesia	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Planted	480	480	450	470		460
Area Harvested	430	430	420	420		410
Beginning Stocks	63	63	145	25		54
Production	565	565	540	540		520
MY Imports	2649	2649	2700	2800		2850
Total Supply	3277	3277	3385	3365		3424
MY Exports	2	2	2	1		1
Crush	0	0	0	0		0
Food Use Dom. Cons.	3100	3100	3200	3150		3200
Feed Waste Dom. Cons.	30	150	40	160		170
Total Dom. Cons.	3130	3250	3240	3310		3370
Ending Stocks	145	25	143	54		53
Total Distribution	3277	3277	3385	3365		3424

Commodities:

Meal, soybean

Production

Indonesia does not produce any soybean meal. All soybean meal is imported.

Consumption

Fueled by continued growth in the broiler sector, Indonesia's feed industry continues to grow, and soybean meal consumption is forecast to reach 4.6 million tons in 2018/19, 150,000 tons higher than in 2017/18. The feed industry expansion is being driven by increased demand for processed meat products, and the broiler average growing period increasing from 28-30 days to 32-35 days. Indonesia's per capita meat consumption remains low, which portends further growth.

Trade

Soybean meal imports are expected to reach 4.5 million tons in 2018/19. More than 90 percent of imported comes from Brazil and Argentina due to price competitiveness compared with US origin meal.

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Mea	al, Soybean	2016/2017	2017/2018	2018/2019

Market Begin Year	Oct-16	;	Oct-17	1	Oct-	18
Indonesia	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Crush	0	0	0	0		
Extr. Rate, 999.9999	0	0	0	0		
Beginning Stocks	267	267	258	258		258
Production	0	0	0	0		0
MY Imports	4245	4245	4400	4450		4500
Total Supply	4512	4512	4658	4708		4758
Feed Waste Dom. Cons.	4254	4254	4350	4450		4600
Total Dom. Cons.	4254	4254	4350	4450		4600
Ending Stocks	258	258	308	258		158
Total Distribution	4512	4512	4658	4708		4758

Oilseed, Copra

Production

Copra production is forecast to reach 1.42 million metric tons in 2018/19, a slight decrease from 1.45 million metric tons in 2017/18. Coconut plantations continue to decline as result of the land conversions and low profitability. The majority of coconut plantations are owned by smallholder farmers with less intensive maintenance practices, resulting in lower yields.

Consumption

The coconut oil (CNO) industry is the main consumer of copra. The CNO industry is forecast to consume 1.39 million metric tons of copra in 2018/19, a decline from 1.42 million metric tons in 2017/18, due to lower overall production.

Trade

Small amounts of copra were exported to destinations such Bangladesh and the Philippines. Copra exports are forecast to be stable at 25,000 tons for 2018/19.

Oilseed, Copra	2016/2017		2017/20	18	2018/2019	
Market Begin Year	Oct-1	6	Oct-17		Oct-1	8
Indonesia	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Planted	0	0	0	0	0	0
Area Harvested	3760	3760	3700	3530	0	3480
Trees	0	0	0	0	0	0
Beginning Stocks	0	0	7	7	0	7
Production	1580	1580	1570	1450	0	1420
MY Imports	1	1	1	0	0	0
Total Supply	1581	1581	1578	1457	0	1427
MY Exports	19	19	12	25	0	25
Crush	1550	1550	1558	1420	0	1390
Food Use Dom. Cons.	0	0	0	0	0	0
Feed Waste Dom. Cons.	5	5	5	5	0	5

Total Dom. Cons.	1555	1555	1563	1425	0	1395
Ending Stocks	7	7	3	7	0	7
Total Distribution	1581	1581	1578	1457	0	1427

Oil, Coconut

Production

Based on copra production trends, coconut oil (CNO) production is forecast to decrease to 890,000 tons in 2018/19, crushed from 1.39 million tons of copra.

Consumption

CNO consumption for food and industrial use and industrial minimal, with the oleo-chemical industry being the largest consumer. The sectors prefer lower-priced palm-based products. CNO domestic consumption is forecast to be stable at 385,000 tons in 2017/18 and 2018/2019.

Trade

CNO exports are forecast to reach 550,000 tons both in 2017/18 and 2018/19. Major destinations of CNO exports were U.S., China and Netherlands.

Production, Supply and Distribution Data Statistics

Oil, Coconut	2016/2017		2017/20	2017/2018		2018/2019	
Market Begin Year	Oct-1	Oct-16 Oct-17		7	Oct-18		
Indonesia	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post	
Crush	1550	1550	1558	1420	0	1390	
Extr. Rate, 999.9999	0.636	0.632	0.6351	0.634	0	0.6403	
Beginning Stocks	85	85	98	98	0	63	
Production	980	980	995	900	0	890	
MY Imports	0	0	0	0	0	0	
Total Supply	1065	1065	1093	998	0	953	
MY Exports	517	517	620	550	0	550	
Industrial Dom. Cons.	275	275	250	250	0	250	
Food Use Dom. Cons.	175	175	135	135	0	135	
Feed Waste Dom. Cons.	0	0	0	0	0	0	
Total Dom. Cons.	450	450	385	385	0	385	
Ending Stocks	98	98	88	63	0	18	
Total Distribution	1065	1065	1093	998	0	953	

Commodities:

Meal, Copra

Production

Based on decreasing crushed copra volumes, copra meal (CM) production is expected to decline from 480,000 tons in 2017/18 to 470,000 tons in 2018/19.

Consumption

The feed industry is the primary domestic consumer of copra meal. As the industry is expected to grow, copra meal consumption is forecast to reach 290,000 tons in 2018/19.

Trade

Based on October to December 2017 trade data, copra meal exports are forecast to reach 250,000 tons in 2017/18. About 97 percent of Indonesia copra meal was shipped to South Korea and India during 2016/17.

Production, Supply and Distribution Data Statistics

Meal, Copra	2016/2017 Oct-16		2017/20)18	2018/2019	
Market Begin Year			Oct-17		Oct-18	
Indonesia	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Crush	1550	1550	1558	1420	0	1390
Extr. Rate, 999.9999	0.3305	0.332	0.3306	0.338	0	0.338
Beginning Stocks	6	6	6	6	0	37
Production	509	515	515	480	0	470
MY Imports	1	1	1	1	0	1
Total Supply	516	516	522	487	0	508
MY Exports	185	185	245	200	0	210
Industrial Dom. Cons.	0	0	0	0	0	0
Food Use Dom. Cons.	0	0	0	0	0	0
Feed Waste Dom. Cons.	325	325	262	250	0	290
Total Dom. Cons.	325	325	262	250	0	290
Ending Stocks	6	6	15	37	0	8
Total Distribution	516	516	522	487	0	508

Commodities:

Oilseed, Peanut

Production

Peanut production is forecast to decline from 1.075 million tons in 2017/18 to 1.06 million tons in 2018/19. Area is declining due to urbanization and infrastructure development. This situation is exacerbated by the current agricultural policy preference for planting rice and corn.

Consumption

Human consumption falls into three categories: traditional, snack foods and confectionary. In traditional markets, peanuts are used as condiments and sauces. The snack food industry prefers smaller peanut size, which is needed for fried coating applications. Each group requires different specifications as follows:

Market group	Specification	Estimate Market Share		
Traditional	80/90 peanuts per ounce	70 percent		
Snack food	Small round shape, 140/160 peanut per ounce	20 percent		
Confectionary	60/70 peanut per ounce	10 percent		

Source: Post / Industry Contacts

Peanut consumption is not expected to grow.

Trade

Given the slight decline in domestic consumption, peanut imports are forecast to be stable at 320,000 tons both in 2017/18 and 2018/19. Indonesia imports peanuts mainly from India, Malaysia and China with smaller shipments coming from African countries such Sudan and Mozambique.

Import duties for peanut (HS code 1202) is set at 5 percent. However, ASEAN Trade in Goods Agreements eliminates import duties among members.

Oilseed, Peanut			2017/2018		2018/2019	
Market Begin Year	Jan-17	Jan-17 Jan-18		3	Jan-19	9
Indonesia	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested	600	600	590	580	0	570
Beginning Stocks	84	84	87	87	0	82
Production	1120	1120	1100	1075	0	1060
MY Imports	300	300	310	320	0	320
Total Supply	1504	1504	1497	1482	0	1462
MY Exports	7	7	8	5	0	5
Crush	50	50	50	50	0	50
Food Use Dom. Cons.	1280	1280	1280	1270	0	1260
Feed Waste Dom. Cons.	80	80	75	75	0	75
Total Dom. Cons.	1410	1410	1405	1395	0	1385
Ending Stocks	87	87	84	82	0	72
Total Distribution	1504	1504	1497	1482	0	1462